FWA-6280A User Manual

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CE Notification

The FWA-6280, developed by Advantech Co., Ltd., has passed the CE test for environment specifications when shielded cables are used for external wiring. We recommend the use of shielded cables.

2nd Edition

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Product warranty

Advantech warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for two year from the date of purchase.

This warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by Advantech, or which have been subject to misuse, abuse, accident or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech's high quality-control standards and rigorous testing, most of our customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, you will be billed according to the cost of replacement materials, service time and freight. Please consult your dealer for more details. If you think you have a defective product, follow these steps:

1. Collect all the information about the problem encountered. For example, CPU speed, Advantech products used, other hardware and software used, etc. Note anything abnormal and list any on-screen messages you get when the problem occurs.
2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
3. If your product is diagnosed as defective, obtain an RMA (return merchandise authorization) number from your dealer. This allows us to process your return more quickly.
4. Carefully pack the defective product, a fully-completed Repair and Replacement Order Card and a photocopy proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.
5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Packing List

Before installation, ensure that the following materials have been received:

• One FWA-6280 Internet Security Platform

• One box of accessories, which includes a PS/2 Keyboard and mouse cable x 1 and Console cable x 1

• One warranty certificate

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Technical Support and Sales Assistance

If you have any technical questions about the FWA-3140 or any other Advantech products, please visit our support website at:

• **http://www.advantech.com.tw/support**

For more information about Advantech's products and sales information, please visit:

• **http://www.advantech.com**

1 General Information

1.1 Introduction

Conceived as a powerful rackmount Internet security platform, the FWA-6280A was specifically designed for high performance IDS/IPS, firewall, VPN gateway and Unified Threat Management (UTM). Designed with the Intel® Xeon processor, it provides high performance and meets the requirements of Internet security appliances.

PCI-Express technology improves the I/O bandwidth and system total bandwidth up to 32Gbps. The system supports two removable optional 3.5" IDE/SATA H.D.D. and Compact Flash for OS and Internet security applications.

In addition, the FWA-6280A can support system memory up to 12 GB DDR2 memory. Both Compact Flash and memory can be accessed and replaced for software upgrades through an easily removable cover. The H.D.D. can be inserted/removed easily from the front panel. Designed with the Plug-and-Serve concept in mind, the FWA-6280A offers eight 10/100/1000 Mbps LAN ports in the front panel. For easy access, the front panel has a 9-pin RS-232 serial port, a 10/100 managed LAN port, and an LCD Module for local system management, maintenance, and diagnostics. It is FCC and CE compliant.

1.2 Features

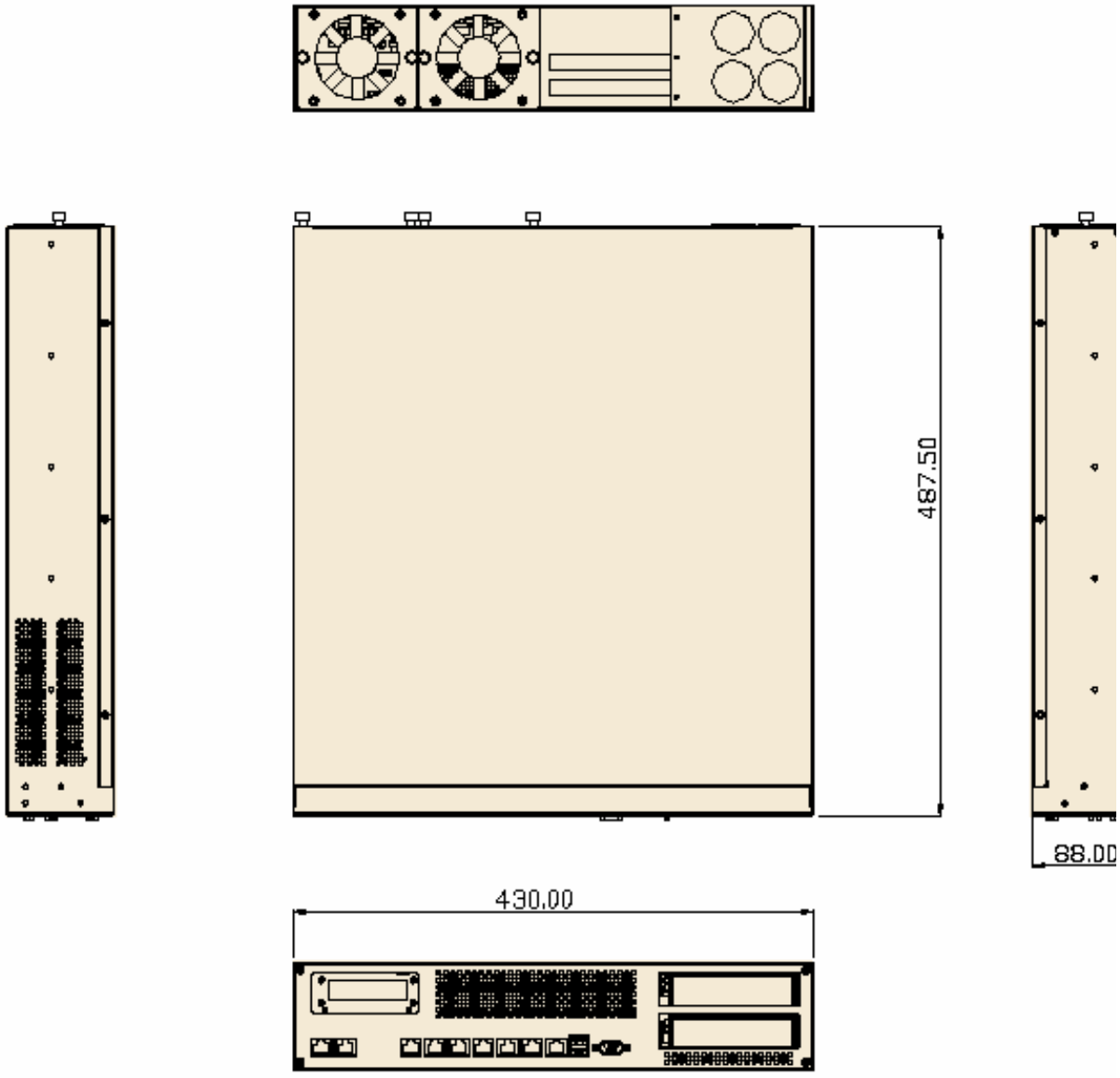
- Intel Xeon. EM64T (Nocona), up to 3.2 GHz
- Dual channel DDR-II 400 ECC registered, up to 12 GB
- Eight 10/100/1000 Mbps LAN ports
- Supports mini-GBIC, up to two interfaces
- PCI-X 64/133 slots 3.3 V, up to 2 slots
- Supports two removable 3.5” IDE/SATA HDD
- One 10/100 Mbps managed LAN port

1.3 Specification

Processor System	CPU Max Speed Chipset Front Side Bus BIOS	Intel® Xeon™ EM64T with Hyper Threading, single or dual processor 3.2GHz Intel® E7520 (Lindenhurst) + 6300ESB (Hance Rapids) 800 MHz Award 4MB Flash
Memory	Technology Capacity	Dual channel DDR II-400 ECC Registered Up to 12GB with 6 slots, installed in pairs
Expansion	PCI-Express Onboard Expansion slots Riser card	One PCI-E x8 connector Support half-height cards without external access Two PCI-X 64/133 connectors Support full-height cards and external access, like, LAN and SCSI
Ethernet	Managed LAN Gigabit Ethernet LAN bypass	One Fast Ethernet for management Eight, support fiber interface One segment for all copper ports
Storage	Controller IDE SATA Compact Flash Socket	6300ESB IDE interface - Supports 3.5” H.D.D x 2 on IDE0 - Max. Data Transfer Rate 100MB/sec - Non-hot swappable SATA interface - Supports 3.5” H.D.D bay x 2 on separate SATA channel - Max. Data Transfer Rate 150MB/sec - Supports Serial ATA, RAID 0,1 - Supports hot swap (SATA only) One CF socket on IDE1
	USB	Two USB2.0

Peripheral	Serial LCD Module K/B, Mouse, LPT, CRT	One RS-232 Size:16x2, 5 buttons, in COM1 Pin headers	
Power	Watt Input	Support Redundant 500W 90 ~ 240V AC	
Environment		Operating	Non-Operating
	Temperature	0 ~ 40 °C (32 ~ 104 °F)	-20 ~ 75 °C (-4 ~ 167 °F)
	Humidity	5 ~ 85 % @ 40 °C (104 °F)	5 ~ 95 %
Physical	Dimensions(W x H x D)	426 x 88 x 487.5 mm (16.8” x 3.46” x 19.2”)	
	Weight	Weight 18 Kg (40lb)	

1.4 Dimension



2 System Installation

2.1 Remove Top Cover

There are screws which secure the cover to the chassis. They are along the sides, near the top. Remove them, and then slide the cover to the rear of the chassis.

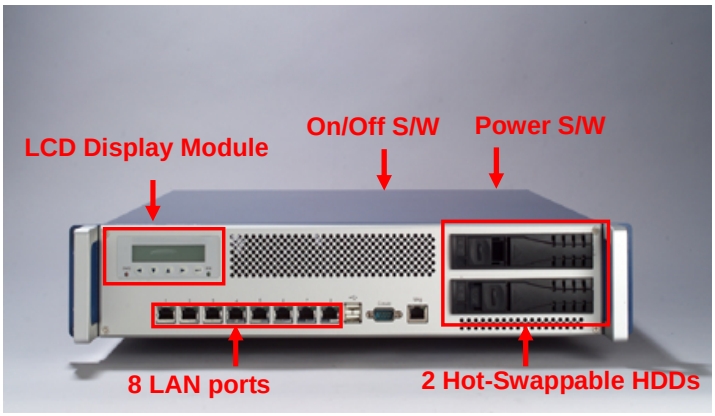


Figure 2-1: Front view of FWA-6280

Figure 2-2: Remove Top cover

2.2 Install XEON Central Processor Unit

1. Locate the CPU ZIF socket on the motherboard. And pull the Socket actuation lever to the 90-degree directly.
2. Position the CPU above the socket that its marked corner (golden cut edge on the CPU upper corner) matches the base of the socket lever. Insert the CPU into the socket. (Do not force the CPU into the socket.) Then push down the socket lever to secure the CPU.
3. Position the cooling fan on top of the CPU, Screw each side of the CPU cooling fan to fix on the retention mechanism, then installing CPU is completed.

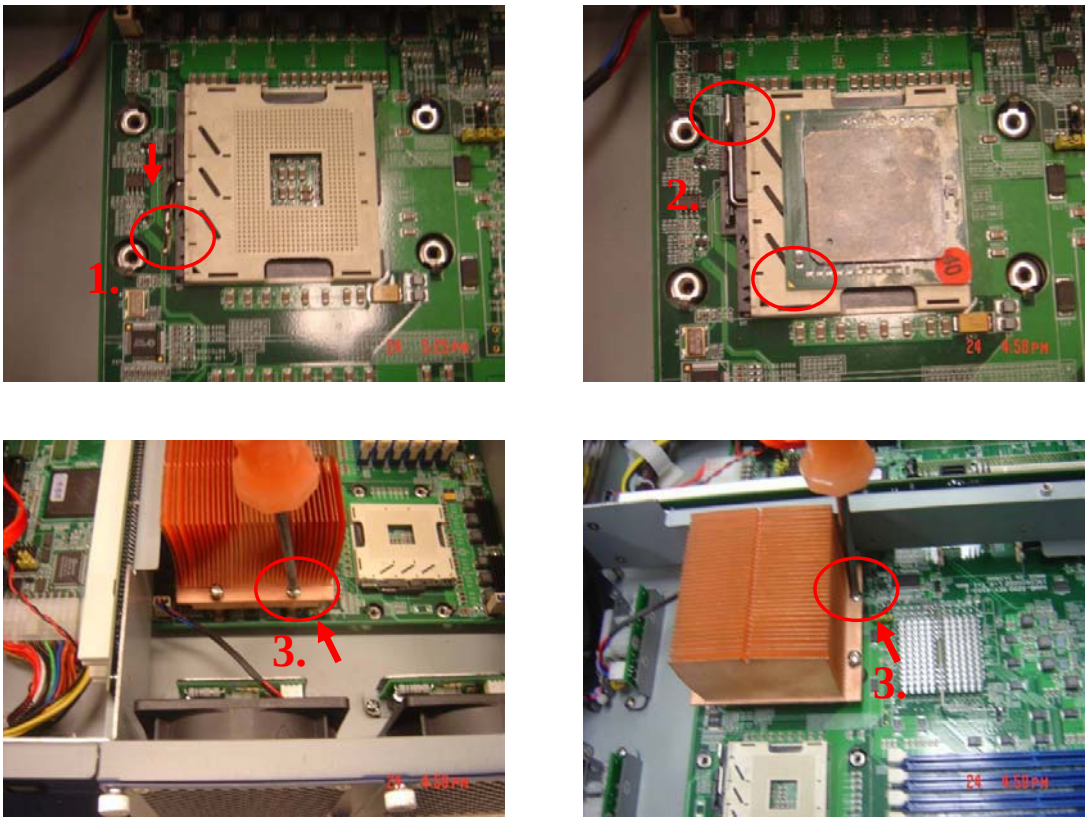


Figure 2-3: Installing Central Processing Unit

2.3 Install Memory

1. Unlock a DIMM socket by aligning the notch of the DIMM memory module to match on the socket and insert the DIMM into the socket until the DIMM is properly seated.
2. Press the retaining clips inward to lock the DIMM memory module. Installing memory module is completed.

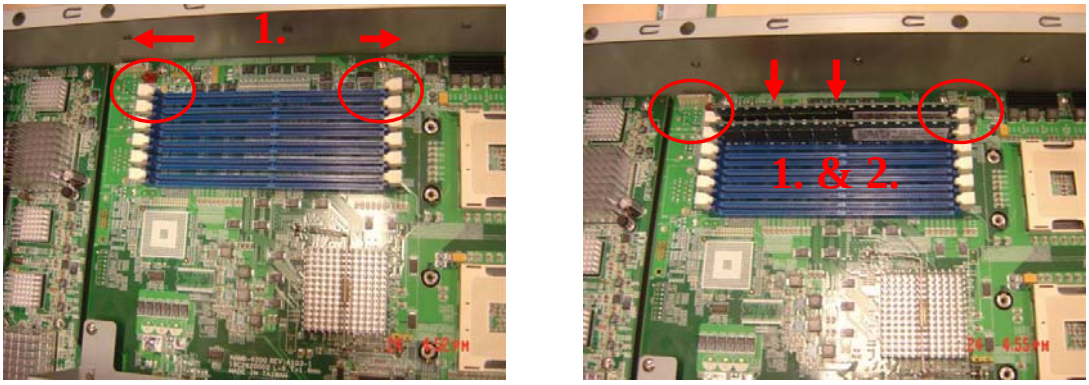


Figure 2-4: Installing Memory Module steps

2.4 Install Riser Card and PCI-X Adapter

1. Unscrew the rear side of the riser card
2. Unscrew the bracket of riser card, and pull out the riser card from M/B
3. Unscrew the I/O shield
4. Install a PCI card into the riser card, and position the screws accordingly
5. Install the riser card into the M/B, and position the screws accordingly

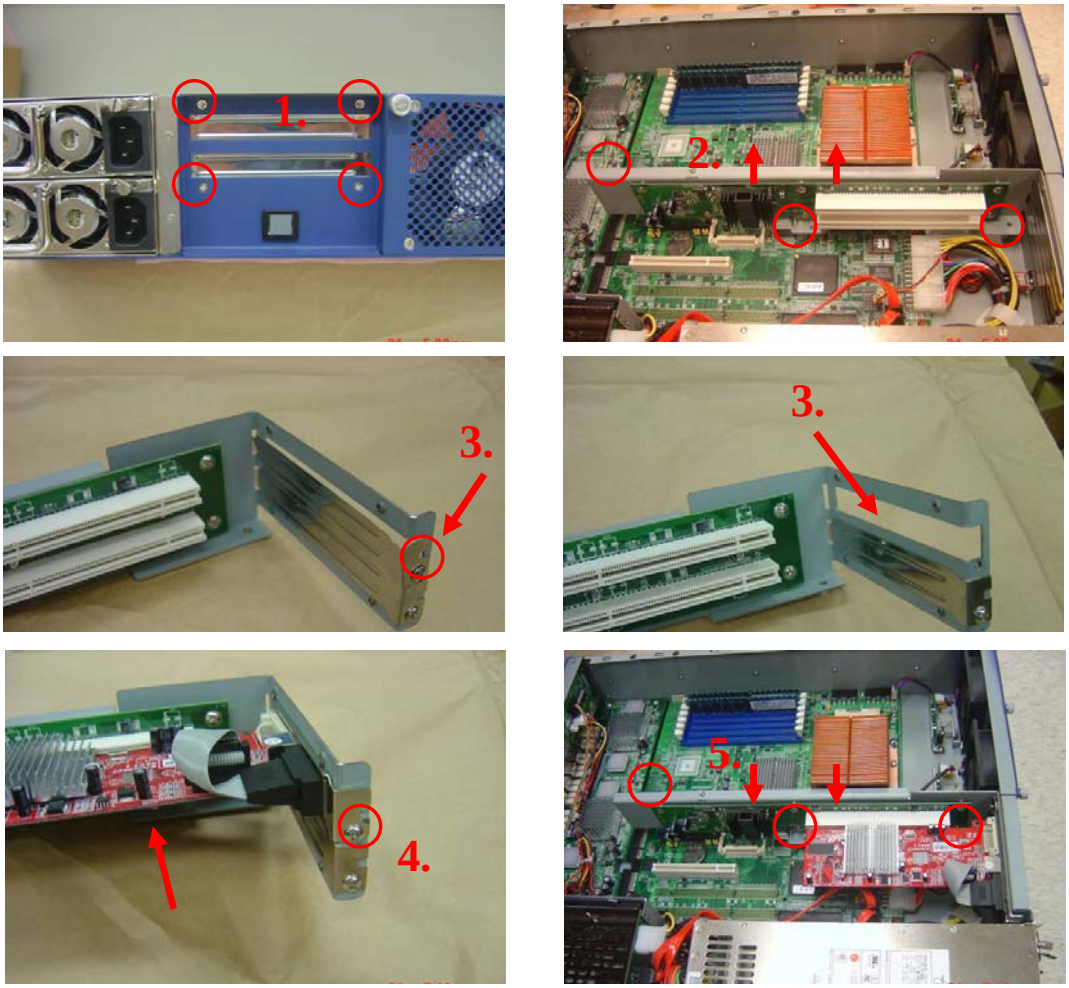


Figure 2-5: Installing Riser Card and PCI-X Adapter steps

2.5 Install Hard Drive

1. Unlock a HDD tray socket by.
2. Pull out the HDD tray.
3. Place the HDD on the HDD tray, and position the screws accordingly.
4. Put back into the HDD bracket, and lock the HDD tray socket.

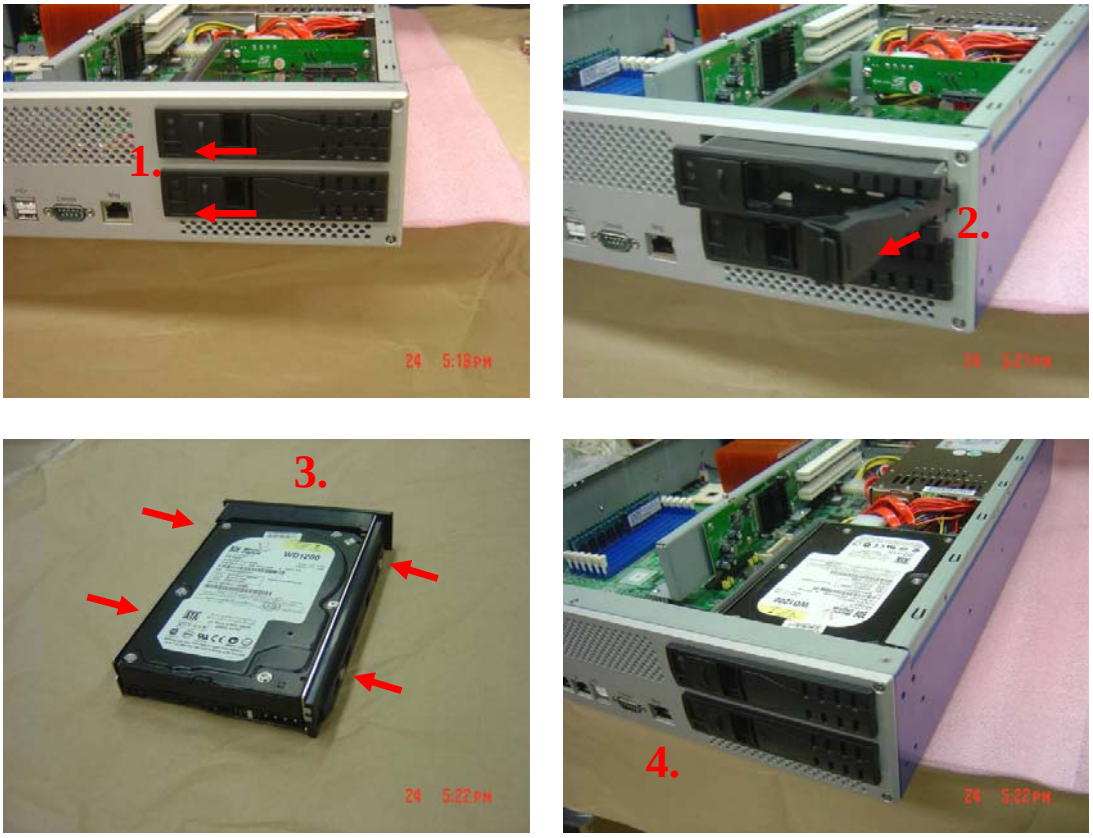


Figure 2-6: Installing Hard Drive steps

2.6 Install Compact Flash

1. Locate the compact flash socket on the motherboard.
2. Place the CF card in the compact flash socket as shown in the picture.

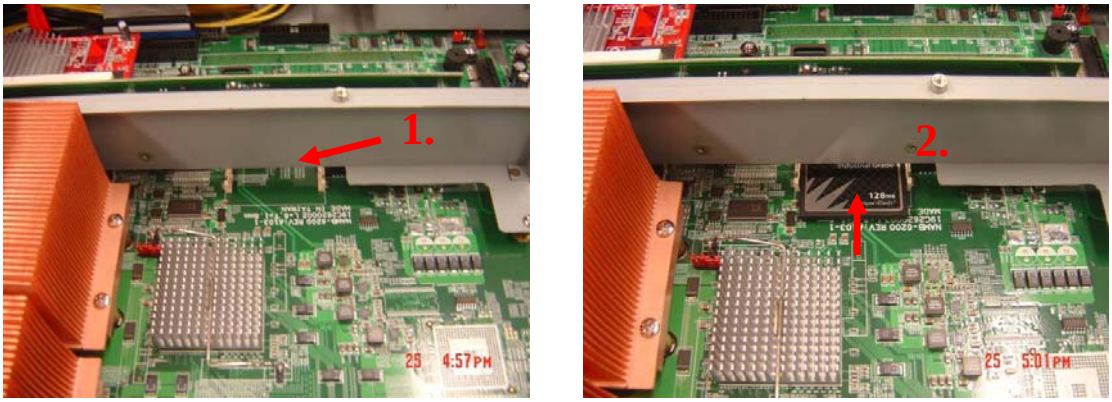


Figure 2-7: Installing compact flash card steps

2.7 Removable Fan

1. Locate the removable fans on the rear side of system.
2. Unscrew the removable fans, and put it out from the system.

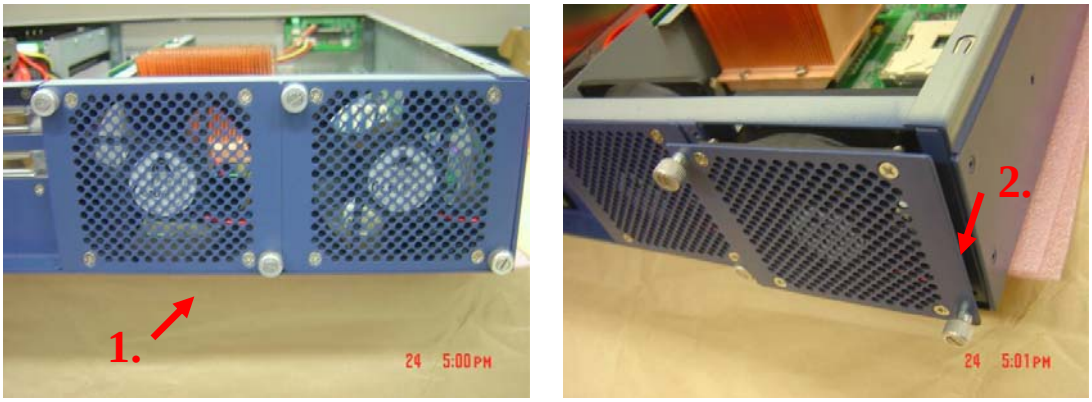


Figure 2-8: Installing removable fans steps